

This section examines the air quality in the project area, includes a summary of applicable air quality regulations, and analyzes potential air quality impacts associated with the proposed project.

4.2.1 EXISTING SETTING

AIR BASIN CHARACTERISTICS

The California Air Resources Board (CARB) divides the state into air basins that share similar meteorological and topographical features. The project site is located in the eastern portion of Placer County that contains both the Mountain Counties Air Basin (MCAB) and the Lake Tahoe Air Basin (LTAB). The project site is located in the MCAB.

The MCAB consists of nine counties or portions of counties stretching from Plumas County on the north to Mariposa County on the south. The MCAB exhibits large variations in terrain and consequently exhibits large variations in climate, both of which affect air quality. The western portions of the basin slope relatively gradually, with deep river canyons running from southwest to northeast toward the crest of the Sierra Nevada range. East of the divide, the slope of the Sierra is steeper, but river canyons are relatively shallow.

The LTAB is located between two mountain ranges, the Carson Range on the east and the Sierra Nevada on the west. Mountain ranges surrounding the LTAB reach levels of approximately 8,000 feet above sea level, with a high of approximately 10,881 feet at Freel Peak. Lake Tahoe is located in the center of the basin in a depression between the surrounding mountain ranges at a surface elevation of approximately 6,200 feet above sea level. The California-Nevada state line bisects the basin, with approximately one-third of the basin located in Nevada and two-thirds in California. On the California side, the basin includes portions of El Dorado and Placer counties. On the Nevada side, portions of Carson City and Douglas and Washoe counties are within the basin's boundaries.

Meteorological Conditions and Air Pollution

Local meteorological conditions are recorded at the Truckee Ranger Station. The annual average precipitation is approximately 31.5 inches, which primarily occurs from October through April. Average temperatures range from a minimum of 19°F in January to a maximum of 77.9°F in July. The annual predominant wind direction is from the south-southwest at 12 mph (WRCC 2005).

Because of the topographical features and meteorological conditions of the region, the MCAB and the LTAB are more sensitive to negative impacts on air quality than most other areas of California. Cold temperatures and mild winds often result in temperature inversions in which upper layers of warmer air trap colder air near the surface. Local pollutant sources in both the MCAB and the LTAB are trapped by frequent inversions, which limit the volume of air into which they can be mixed and in turn results in elevated pollutant concentrations. The most frequent episodes of high pollution occur during local basin inversions, when emissions from local sources such as motor vehicles, chimney smoke, and forest burning are trapped in the basins. Local air basin inversions in the project area are a result of the cold temperatures of Lake Tahoe, which contribute to the occurrence of subsidence and radiation inversions throughout the year. The nighttime cooling effects of the lake result in downslope nocturnal winds, which transport local pollutants from developed areas around the lake out onto the lake and contribute to increased pollutant deposition into the lake. This is the most common meteorological condition contributing to air quality degradation in the project area.

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The second most common meteorological condition contributing to air quality degradation is transport from the Sacramento Valley and the Bay Area into the region. This meteorological condition is strongest during the warmer summer months and contributes approximately 30 percent of the ozone and airborne particulate matter pollution in the region. The lowest pollution regimes are associated with the fall and winter months and contribute approximately 10 percent of the pollution to the region. Similar to other areas, when winds are strong enough to break up basin inversion layers, pollution is generally blown outside of the region and the air quality is typically good. However, when fall and winter winds are weak, this regime is associated with persistent local inversions and the associated buildup of local pollutants.

Lake Tahoe Clarity

The lake is more than one-quarter of a mile deep and known for its deep blue color and clarity. Between the mid-1960s and the mid-1990s, water clarity decreased from 100 feet to 65 feet, a decrease averaging over 1 foot per year. Reductions in lake clarity are due to increases in nutrient loading, predominantly nitrogen and phosphorus. Nutrient loading to the lake is responsible for increased algae growth, which in turn has been a significant factor in the decline of clarity. Increases in algae growth coincided with a period of rapid growth and development in the basin. Runoff from the surrounding watershed, groundwater, and atmospheric deposition all contribute to increased nitrification of the lake. The annual average clarity in the past decade has been better. The highest individual value recorded in 2014 was 93.5 feet on July 7, though the lowest was 57.4 feet on September 16.

Based on recent studies, it is estimated that atmospheric deposition accounts for about a fourth of the phosphorous and nearly half of the nitrogen contributing to Lake Tahoe's nitrification. Air quality studies have yet to definitively ascertain the specific sources of these pollutants, but in-basin wood smoke and road dust are generally considered to be significant sources of atmospheric phosphorous.

Visibility

Concerns related to visibility are typically related to the aesthetic damage resulting from air pollution. By common definition, visibility is typically defined based on conditions that take into account multiple aspects, including recognition of contrast detail, form, and color of near and distant features. From an aesthetic perspective, visibility represents not just visual range but also the overall visual experience. Air quality can contribute to visibility reductions or "haze," which at high levels can result in a loss of scenic value. Under a variety of conditions, loss of visibility is directly proportional to reduction in atmospheric light transmittance. Light transmittance in the atmosphere is attenuated by scattering and absorption from both gases and particles. The chemical composition and size of airborne particles are primary factors affecting visibility. Fine particles (<2.5 microns) are of particular concern and tend to dominate visibility effects. In general, the composition of ambient particulate matter consists basically of just six species: sulfates, organics, elemental carbon, ammonium nitrate, soil dust, and aerosol-bound water. Among these six species, there are significant differences in sources, atmospheric behavior, size distributions, and visibility effects (Trijonis 1990).

Visibility in the LTAB is evaluated based on region-wide and local visibility conditions. Region-wide visibility is defined as the overall prevailing visibility across the Lake Tahoe Basin and is measured at the Bliss State Park monitoring site. Subregional visibility is defined as the overall prevailing visibility across the urbanized area and was previously measured at a site located in South Lake Tahoe. Regional data from the Bliss monitoring site has typically indicated relatively constant visual air quality in the basin throughout the year, with only a slight increase in the scattering and extinction

coefficient during the summer months. In sharp contrast, large seasonal variations have been noted at the South Lake Tahoe site, with winter twice the summer value, which indicates the strong effect of local sources in the urbanized area of South Lake Tahoe.

Forest Health

The negative effects of air pollutants on vegetation have been known for many years. In the MCAB and the LTAB, the adverse effects of ground-level ozone are of primary concern. Ground-level ozone interferes with the ability of plants to produce and store food, which makes them more susceptible to disease, insects, other pollutants, and harsh weather. Ozone damages the leaves and needles on trees and other plants. As a gaseous pollutant, ozone enters the stomata of plant leaves through the normal process of gas exchange, damaging the plant tissue.

AIR POLLUTANTS OF CONCERN

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. These regulated air pollutants are known as criteria air pollutants and are categorized into primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxide (NO_x), sulfur dioxide (SO₂), coarse particulate matter (PM₁₀) and fine particulate matter (PM_{2.5}), lead, and fugitive dust are primary air pollutants. Of these, CO, SO₂, PM₁₀, and PM_{2.5} are criteria pollutants. ROG and NO_x are criteria pollutant precursors and go on to form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O₃) and nitrogen dioxide (NO₂) are the principal secondary pollutants. Presented in **Table 4.2-1** is a description of each of the primary and secondary criteria air pollutants and their known health effects.

TABLE 4.2-1
CRITERIA AIR POLLUTANTS SUMMARY OF COMMON SOURCES AND EFFECTS

Pollutant	Major Man-Made Sources	Human Health Effects
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO ₂)	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone. Contributes to global warming and nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere.
Ozone (O ₃)	Formed by a chemical reaction between reactive organic gases (ROGs) and nitrous oxides (NO _x) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, gasoline storage and transport, solvents, paints, and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.

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Pollutant	Major Man-Made Sources	Human Health Effects
Particulate Matter (PM ₁₀ & PM _{2.5})	Produced by power plants, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; asthma; chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility.
Sulfur Dioxide (SO ₂)	A colorless gas formed when fuel containing sulfur is burned and when gasoline is extracted from oil. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid which can damage marble, iron and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain.

Source: CAPCOA 2011

AMBIENT AIR QUALITY

Ambient air quality in eastern Placer County can be inferred from ambient air quality measurements conducted at nearby air quality monitoring stations. Existing levels of ambient air quality and historical trends and projections in the vicinity of the project site are documented by measurements made by the Placer County Air Pollution Control District (PCAPCD), the air pollution regulatory agency in Placer County that maintains air quality monitoring stations which process ambient air quality measurements.

The Tahoe City-221 Fairway Drive air quality monitoring station is the closest station to the project site, approximately 4 miles to the southeast. Ambient concentrations of O₃ were obtained from data provided by this monitoring station. Ambient concentrations of PM₁₀ were obtained from data provided by the South Lake Tahoe-Sandy Way air quality monitoring station approximately 20 miles south of the project site, and ambient concentrations of PM_{2.5} were obtained from data provided by the Truckee Fire Station. Ambient emission concentrations will vary due to localized variations in emission sources and climate and should be considered “generally” representative of ambient concentrations in the project area. **Table 4.2-2** summarizes the published data since 2012 for each year that the monitoring data is provided.

TABLE 4.2-2
SUMMARY OF AMBIENT AIR QUALITY DATA

Pollutant Standards	2012	2013	2014
Ozone			
Max 1-hour concentration (ppm)	*	0.049	0.076
Max 8-hour concentration (ppm) (state/federal)	* / 0.046	0.047 / 0.068	0.069 / 0.069
Number of days above state 1-hour standard	*	0	0
Number of days above state/federal 8-hour standard	* / *	0 / 0	0 / 0
Respirable Particulate Matter (PM₁₀)			
Max 24-hour concentration (µg/m ³) (state/federal)	84.1 / *	139.3 / *	58.6 / 69.9
Number of days above state/federal standard	* / *	* / *	2.0 / *

Pollutant Standards	2012	2013	2014
Fine Particulate Matter (PM_{2.5})			
Max 24-hour concentration ($\mu\text{g}/\text{m}^3$) (state/federal)	27.5 / 18.0	61.2 / 42.9	79.7 / 79.7
Number of days above federal standard	0	3.2	6.1

Source: CARB 2015

Notes:

$\mu\text{g}/\text{m}^3$ = micrograms per cubic meter; ppm = parts per million

* = No data is currently available from CARB to determine the value.

Areas with air quality that exceed adopted air quality standards are designated as nonattainment areas for the relevant air pollutants, while areas that comply with air quality standards are designated as attainment areas for the relevant air pollutants. The attainment status for eastern Placer County is included in **Table 4.2-3**. The region is nonattainment for state ozone, PM₁₀, and PM_{2.5} standards in addition to federal ozone and PM_{2.5} standards (CARB 2013a).

**TABLE 4.2-3
FEDERAL AND STATE AMBIENT AIR QUALITY ATTAINMENT STATUS FOR EASTERN PLACER COUNTY**

Pollutant	Federal	State
Ozone (O ₃)	Nonattainment	Nonattainment (MCAB) Unclassified/Attainment (LTAB)
Coarse Particulate Matter (PM ₁₀)	Nonattainment	Unclassified
Fine Particulate Matter (PM _{2.5})	Unclassified	Unclassified/Attainment
Carbon Monoxide (CO)	Unclassified	Unclassified/Attainment
Nitrogen Dioxide (NO ₂)	Attainment	Unclassified/Attainment
Sulfur Dioxide (SO ₂)	Attainment	Attainment

Source: CARB 2013a

Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes, such as petroleum refining; commercial operations, such as gasoline stations and dry cleaners; and motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as from accidental releases of hazardous materials during upset conditions. The health effects associated with TACs are quite diverse and generally are assessed locally rather than regionally.

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To date, the California Air Resources Board has designated nearly 200 compounds as TACs. Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to a relatively few compounds.

CARB has also identified diesel particulate matter (diesel PM) as a toxic air contaminant. Diesel PM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Diesel exhaust is a complex mixture of particles and gases produced when an engine burns diesel fuel. Diesel PM is a concern because it causes lung cancer; many compounds found in diesel exhaust are carcinogenic. Diesel PM includes the particle-phase constituents in diesel exhaust. The chemical composition and particle sizes of diesel PM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), fuel formulations (high/low sulfur fuel), and the year of the engine (EPA 2002, pp. 1-1 and 1-2). Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, light-headedness, and nausea. Diesel PM poses the greatest health risk among the TACs; due to their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

Existing TAC sources in Squaw Valley include diesel trucks, back-up diesel generators, and diesel snow removal equipment.

Wood Smoke

Wood smoke has long been identified as a significant source of pollutants in urban and suburban areas. Wood smoke contributes to particulate matter and carbon monoxide concentrations, reduces visibility, and contains numerous toxic air contaminants. Present controls on this source include the adoption of emission standards for woodstoves and fireplace inserts. Interest in wood smoke is likely to increase with the recent adoption of a PM_{2.5} (particulate matter less than 2.5 microns in diameter) national standard.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others because of the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases.

Residential areas are considered to be sensitive receptors to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Children are considered more susceptible to the health effects of air pollution due to their immature immune systems and developing organs (OEHHA 2007). As such, schools are also considered sensitive receptors, as children are present for extended durations and engage in regular outdoor activities.

4.2.2 REGULATORY FRAMEWORK

AMBIENT AIR QUALITY STANDARDS

The Clean Air Act (CAA) established national ambient air quality standards (NAAQS), with states retaining the option to adopt more stringent standards or to include other pollution species. These standards are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect those sensitive receptors most susceptible to further respiratory distress such as asthmatics, the elderly, very

young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both the State of California and the federal government have established health-based ambient air quality standards for six air pollutants. As shown in **Table 4.2-4**, these pollutants include O₃, CO, NO₂, SO₂, PM₁₀, PM_{2.5}, and lead. In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

TABLE 4.2-4
AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards	National Standards
Ozone (O ₃)	8 Hour	0.070 ppm (137 µg/m ³)	0.075 ppm
	1 Hour	0.09 ppm (180 µg/m ³)	—
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)
	1 Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)
Nitrogen Dioxide (NO ₂)	1 Hour	0.18 ppm (339 µg/m ³)	100 ppb
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)	53 ppb (100 µg/m ³)
Sulfur Dioxide (SO ₂)	24 Hour	0.04 ppm (105 µg/m ³)	N/A
	3 Hour	—	N/A
	1 Hour	0.25 ppm (665 µg/m ³)	75 ppb
Particulate Matter (PM ₁₀)	Annual Arithmetic Mean	20 µg/m ³	N/A
	24 Hour	50 µg/m ³	150 µg/m ³
Particulate Matter – Fine (PM _{2.5})	Annual Arithmetic Mean	12 µg/m ³	15 µg/m ³
	24 Hour	N/A	35 µg/m ³
Sulfates	24 Hour	25 µg/m ³	N/A
Lead	Calendar Quarter	N/A	1.5 µg/m ³
	30 Day Average	1.5 µg/m ³)	N/A
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	N/A
Vinyl Chloride (chloroethene)	24 Hour	0.01 ppm (26 µg/m ³)	N/A
Visibility-Reducing Particles	8 Hour (10:00 to 18:00 PST)	—	N/A

Source: CARB 2013b

Notes: mg/m³ = milligrams per cubic meter; ppm = parts per million; ppb = parts per billion; µg/m³ = micrograms per cubic meter

Placer County Air Pollution Control District

At the county level, air quality is managed through land use and development planning practices implemented by Placer County and through permitted source controls implemented by the PCAPCD. The PCAPCD is also the agency responsible for enforcing many federal and

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state air quality requirements and for establishing air quality rules and regulations. The PCAPCD attains and maintains air quality conditions in Placer County through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The PCAPCD's clean air strategy includes the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, and issuance of permits for stationary sources of air pollution. The PCAPCD also inspects stationary sources of air pollution and responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements programs and regulations required by the federal Clean Air Act, the Clean Air Act Amendments of 1990, and the California Clean Air Act (CCAA).

PCAPCD Rules and Regulations

All projects are subject to rules and regulations adopted by the PCAPCD in effect at the time of construction. Specific rules applicable to future construction resulting from the implementation of the proposed project may include but are not limited to:

- **Rule 202 – Visible Emissions.** A person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker in shade as that designated as number 1 on the Ringelmann Chart, as published by the United States Bureau of Mines.
- **Rule 205 – Nuisances.** A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause to have a natural tendency to cause injury or damage to business or property.
- **Rule 207 – Particulate Matter.** For the MCAB portions of the Placer County Air Pollution Control District, a person shall not release or discharge into the atmosphere from any source or single processing unit, exclusive of sources emitting combustion contaminants only, particulate matter emissions in excess of: 0.1 grains per cubic foot of gas at district standard conditions.
- **Rule 217 – Cutback and Emulsified Asphalt Paving Materials.** A person shall not manufacture for sale nor use for paving, road construction, or road maintenance any rapid cure cutback asphalt; slow cure cutback asphalt containing organic compounds which evaporate at 500°F or lower as determined by current American Society for Testing and Materials (ASTM) Method D402; medium cure cutback asphalt except as provided in Section 1.2.; or emulsified asphalt containing organic compounds which evaporate at 500°F or lower as determined by current ASTM Method D244, in excess of 3 percent by volume.
- **Rule 218 – Application of Architectural Coatings.** No person shall: (i) manufacture, blend, or repackage for use within the district; (ii) supply, sell, or offer for use within the district; or (iii) solicit for application or apply within the district, any architectural coating with a VOC [volatile organic compound] content in excess of the identified limit. Limits are expressed as VOC regulatory content as defined in subsection 278, in grams of VOC per liter of coating thinned to the manufacturer's maximum recommendation, excluding any

colorant added to the tint bases; except for Low Solid Coatings where limits are expressed as VOC actual content as defined in subsection 276.

- **Rule 228 – Fugitive Dust**

- Visible Emissions Not Allowed Beyond the Boundary Line: A person shall not cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area (including disturbance as a result of the raising and/or keeping of animals or by vehicle use), such that the presence of such dust remains visible in the atmosphere beyond the boundary line of the emission source.
- Visible Emissions from Active Operations: In addition to the requirements of Rule 202, Visible Emissions, a person shall not cause or allow fugitive dust generated by active operations, an open storage pile, or a disturbed surface area, such that the fugitive dust is of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke as dark or darker in shade as that designated as number 2 on the Ringelmann Chart, as published by the United States Bureau of Mines.
- Concentration Limit: A person shall not cause or allow PM10 levels to exceed 50 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) (24-hour average) when determined, by simultaneous sampling, as the difference between upwind and downwind samples collected on high-volume particulate matter samplers or other EPA-approved equivalent method for PM10 monitoring.
- Track-Out onto Paved Public Roadways: Visible roadway dust as a result of active operations, spillage from transport trucks, and the track-out of bulk material onto public paved roadways shall be minimized and removed.
 - The track-out of bulk material onto public paved roadways as a result of operations, or erosion, shall be minimized by the use of track-out and erosion control, minimization, and preventative measures, and removed within one hour from adjacent streets such material anytime track-out extends for a cumulative distance of greater than 50 feet onto any paved public road during active operations.
 - All visible roadway dust tracked out upon public paved roadways as a result of active operations shall be removed at the conclusion of each work day when active operations cease, or every 24 hours for continuous operations. Wet sweeping or a High Efficiency Particulate Air (HEPA) filter-equipped vacuum device shall be used for roadway dust removal.
 - Any material tracked out, or carried by erosion, and cleanup water shall be prevented from entering waterways or stormwater inlets as required to comply with water quality control requirements.
- Minimum Dust Control Requirements: The following dust mitigation measures are to be initiated at the start and maintained throughout the duration of any construction or grading activity, including any construction or grading for road construction or maintenance.
 - Unpaved areas subject to vehicle traffic must be stabilized by being kept wet, treated with a chemical dust suppressant, or covered.

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- The speed of any vehicles and equipment traveling across unpaved areas must be no more than 15 miles per hour unless the road surface and surrounding area are sufficiently stabilized to prevent vehicles and equipment traveling more than 15 miles per hour from emitting dust exceeding Ringelmann 2 or visible emissions from crossing the project boundary line.
- Storage piles and disturbed areas not subject to vehicular traffic must be stabilized by being kept wet, treated with a chemical dust suppressant, or covered when material is not being added to or removed from the pile.
- Prior to any ground disturbance, including grading, excavating, and land clearing, sufficient water must be applied to the area to be disturbed to prevent emitting dust exceeding Ringelmann 2 and to minimize visible emissions from crossing the boundary line.
- Construction vehicles leaving the site shall be cleaned to prevent dust, silt, mud, and dirt from being released or tracked off-site.
- When wind speeds are high enough to result in dust emissions crossing the boundary line, despite the application of dust mitigation measures, grading and earthmoving operations shall be suspended.
- No trucks are allowed to transport excavated material off-site unless the trucks are maintained such that no spillage can occur from holes or other openings in cargo compartments, and loads are either covered with tarps; or wetted and loaded such that the material does not touch the front, back, or sides of the cargo compartment at any point less than 6 inches from the top and that no point of the load extends above the top of the cargo compartment.
- Wind-Driven Fugitive Dust Control: A person shall take action(s), such as surface stabilization, establishment of a vegetative cover, or paving, to minimize wind-driven dust from inactive disturbed surface areas.
- **Rule 501 – General Permit Requirements.** Any person operating an article, machine, equipment, or other contrivance, the use of which may cause, eliminate, reduce, or control the issuance of air contaminants, shall first obtain a written permit from the Air Pollution Control Officer (APCO). Stationary sources subject to the requirements of Rule 507, Federal Operating Permit Program, must also obtain a Title V permit pursuant to the requirements and procedures of that rule.

Air Quality Attainment Plan

Under the Clean Air Act requirements, each nonattainment area throughout the state is required to develop a regional air quality management plan. Collectively, all regional air quality management plans throughout the state constitute the State Implementation Plan (SIP). With jurisdiction over part of the Sacramento Federal Ozone Nonattainment Area (which covers the project area), the PCAPCD worked with the other local air districts in the Sacramento area to develop a regional air quality management plan to describe and demonstrate how Placer County, as well as the Sacramento federal nonattainment area, would attain the required federal 8-hour ozone standard by the proposed attainment deadline. In accordance with the requirements of the Clean Air Act, the PCAPCD, along with the other air districts in the region, prepared the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress

Plan (Ozone Attainment Plan) in December 2008. The PCAPCD adopted the Ozone Attainment Plan on February 19, 2009, and CARB determined that the plan meets CAA requirements and approved it on March 26, 2009, as a revision to the SIP. Accordingly, the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan is the applicable air quality plan for the region.

Since the adoption of the Ozone Attainment Plan in early 2009 and its subsequent revision in 2011, there were significant updates to emissions calculation methods, vehicle traveled activity data, and growth assumptions used to develop the plan. The 2013 Ozone Attainment Plan revision shows that the region continues to meet federal progress requirements and demonstrates that the Sacramento Region will meet the 1997 NAAQS by 2018. The 2013 Ozone Attainment Plan updates the emissions inventory, provides a review of photochemical modeling results based on changes in the emissions inventories, updates the reasonable further progress and attainment demonstrations, revises adoption dates for control measures, and establishes new motor vehicle emissions budgets for transportation conformity purposes. The 2013 Ozone Attainment Plan also includes a vehicle mile traveled (VMT) offset demonstration that showed the emissions reduction from transportation control measures and strategies is sufficient to offset the emissions increase due to VMT growth. The 2013 Ozone Attainment Plan contains regional and local control measures that address both ROG and NO_x. A single NO_x pollutant strategy is not appropriate because, even though ROG (and volatile organic compound) measures are not as effective as NO_x control measures, ROG-reducing measures still provide needed reductions in ozone formation.

The SIP provides the framework for air quality basins to achieve attainment of the state and federal ambient air quality standards. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. The attainment status for eastern Placer County is included in **Table 4.2-3**.

TOXIC AIR CONTAMINANT REGULATIONS

The California Health and Safety Code defines a TAC as “an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health.” California regulates TACs primarily through Assembly Bill (AB) 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics “Hot Spot” Information and Assessment Act of 1987). The Tanner Air Toxics Act sets forth a formal procedure for CARB to designate substances as toxic air contaminants. Once a TAC is identified, CARB adopts an “airborne toxics control measure” for sources that emit designated TACs. If there is a safe threshold for a substance (a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions. CARB has, to date, established formal control measures for eleven TACs, all of which are identified as having no safe threshold.

Air toxics from stationary sources are also regulated in California under the Air Toxics “Hot Spot” Information and Assessment Act of 1987. Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High-priority facilities are required to perform a health risk assessment and, if specific thresholds are exceeded, are required to communicate the results to the public in the form of notices and public meetings. Stationary sources of air toxics include gasoline fuel stations, diesel-powered backup generators, and dry cleaning facilities.

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Land Use Compatibility with TAC Emission Sources

The location of a development project is a major factor in determining whether it will result in localized air quality impacts. The potential for adverse air quality impacts increases as the distance between the source of emissions and members of the public decreases. While impacts on all members of the population should be considered, impacts on sensitive receptors, such as schools or hospitals, are of particular concern. CARB (2005) published an informational guide entitled Air Quality and Land Use Handbook: A Community Health Perspective. The purpose of this guide is to provide information to aid local jurisdictions in addressing issues and concerns related to the placement of sensitive land uses near major sources of air pollution. The handbook includes recommended separation distances between TAC sources and new sensitive land uses. However, these recommendations are not site-specific and should not be interpreted as mandated "buffer zones." It is also important to note that the recommendations of the handbook are advisory and need to be balanced with other state and local policies (CARB 2005).

PLACER COUNTY GENERAL PLAN

The General Plan Natural Resources Element contains policies that are relevant to the analysis of air quality impacts. The applicable policies and standards contained in the General Plan are summarized below.

- Policy 6.G.1.** The County shall require new development to be planned to result in smooth flowing traffic conditions for major roadways. This includes traffic signals and traffic signal coordination, parallel roadways, and intra- and inter-neighborhood connections where significant reductions in overall emissions can be achieved.
- Policy 6.G.3.** The County shall encourage the use of alternative modes of transportation by incorporating public transit, bicycle, and pedestrian modes in County transportation planning and by requiring new development to provide adequate pedestrian and bikeway facilities.
- Policy 6.G.5.** The County shall endeavor to secure adequate funding for transit services so that transit is a viable transportation alternative. New development shall pay its fair share of the cost of transit equipment and facilities required to serve new projects.

4.2.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the following California Environmental Quality Act (CEQA) Guidelines Appendix G thresholds of significance:

- 1) Conflict with or obstruct implementation of any applicable air quality plan.
- 2) Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
- 3) Expose sensitive receptors to substantial pollutant concentrations.

- 4) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

The significance criteria established by the applicable air pollution control district (PCAPCD) may be relied upon to make the above determinations. According to the PCAPCD, an air quality impact is considered significant if the proposed project would violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. The PCAPCD has established thresholds of significance for air quality for construction and operational activities of land use development projects such as that proposed, as shown in **Table 4.2-5**.

TABLE 4.2-5
PCAPCD REGIONAL SIGNIFICANCE THRESHOLDS

Air Pollutant	Construction Activities	Operations
Reactive Organic Gases (ROG)	82 pounds/day	82 pounds/day
Nitrogen Oxides (NO _x)	82 pounds/day	82 pounds/day
Coarse Particulates (PM ₁₀)	82 pounds/day	82 pounds/day

Source: PCAPCD 2012

ENVIRONMENTAL IMPACTS NOT DISCUSSED FURTHER

As identified in Section 4.0, no significant odor impacts are expected from the project and no further analysis is provided in this Draft EIR.

METHODOLOGY

Air quality impacts were assessed in accordance with methodologies recommended by CARB and the PCAPCD. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod). CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. Project-generated increases in emissions would be predominantly associated with motor vehicle use. The increase of traffic over existing conditions as a result of the project was obtained from LSC Transportation Consultants (2015). This impact analysis assumes full occupancy of the project site and considers peak winter and summer traffic conditions based on the LSC traffic analysis.

IMPACTS AND MITIGATION MEASURES

Conflict with or Obstruct Implementation of the Air Quality Attainment Plan (Standard of Significance 1)

Impact 4.2.1 Implementation of the proposed project would not conflict with the air quality attainment plan for the region. There is **no impact**.

As previously stated, the PCAPCD is responsible for developing and implementing the air quality plan for attainment and maintenance of the ambient air quality standards in the region. As part of this effort, the PCAPCD has also developed input to the State Implementation Plan, which is

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required under the federal Clean Air Act for areas that are out of attainment for air quality standards. The SIP includes the PCAPCD's plans and control measures for attaining the O₃ national ambient air quality standards.

The SIP plans and control measures are based on information derived from projected growth in Placer County in order to project future emissions and then determine strategies and regulatory controls for the reduction of emissions. Growth projections are based on the general plans developed by Placer County and the incorporated cities in the county. As such, projects that propose development consistent with the growth anticipated by the respective general plan of the jurisdiction in which the proposed development is located would be consistent with the SIP. In the event that a project would propose a development that is less dense than that associated with the general plan, the project would likewise be consistent with the SIP. If a project, however, proposes a development that is denser than that assumed in the general plan, the project may be in conflict with the SIP and could therefore result in a significant impact on air quality.

The proposed project is consistent with the land use designation and development density presented in the Placer County General Plan. The SIP contains air pollutant reduction strategies based, in part, on regional population projections originating with the County's General Plan. Since the proposed project is consistent with the Placer County General Plan, **no impact** would occur.

Mitigation Measures

None required.

Violate Air Quality Standard or Contribute Substantially to an Air Quality Violation: Short-Term Construction Emissions (Standard of Significance 2)

Impact 4.2.2 The project would not result in short-term construction emissions that could violate or substantially contribute to a violation of federal and state standards. This would be a **less than significant** impact.

The project would generate short-term emissions from construction activities such as site grading, asphalt paving, building construction, and architectural coatings (e.g., painting). Common construction emissions include fugitive dust from soil disturbance, fuel combustion from mobile heavy-duty diesel- and gasoline-powered equipment, portable auxiliary equipment, and worker commute trips. During construction, fugitive dust, the dominant source of PM₁₀ and PM_{2.5} emissions, is generated when wheels or blades disturb surface materials. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby. Renovation of buildings can also generate PM₁₀ and PM_{2.5} emissions. Off-road construction equipment is often diesel-powered and can be a substantial source of NO_x emissions, in addition to PM₁₀ and PM_{2.5} emissions. Worker commute trips and architectural coatings are dominant sources of ROG emissions.

Predicted maximum daily construction-generated emissions for the project are summarized in **Table 4.2-6**.

TABLE 4.2-6
CONSTRUCTION-RELATED CRITERIA POLLUTANT AND PRECURSOR EMISSIONS – UNMITIGATED
(MAXIMUM POUNDS PER DAY)¹

Construction Activities	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Site Preparation	5.09	54.66	41.51	0.03	21.08	12.65
Grading	6.49	74.84	49.55	0.06	12.32	6.91
Building Construction	3.53	29.32	20.03	0.02	2.12	1.89
Paving	2.14	22.46	15.85	0.02	1.45	1.21
Painting	11.49	2.41	2.50	0.00	0.30	0.22
Maximum Daily Emissions²	17.20	74.84	49.55	0.06	21.08	12.65
PCAPCD Potentially Significant Impact Threshold	82 pounds/day	82 pounds/day	None	None	82 pounds/day	None
Exceed PCAPCD Threshold?	No	No	No	No	No	No

Source: CalEEMod version 2013.2.2. See **Appendix 4.2** for emission model outputs.

Notes:

1. Construction worker commutes are derived from the transportation impact analysis (LSC 2015).
2. Building construction, paving, and painting assumed to occur simultaneously.

As shown, all criteria pollutant emissions would remain below their respective thresholds. The project would also be subject to compliance with PCAPCD Rule 228 that would require dust control measures (e.g., soil and stockpile stabilization measures). This is a **less than significant** impact.

Mitigation Measures

None required.

Violate Air Quality Standard or Contribute Substantially to an Air Quality Violation: Long-Term Operational Emissions (Standard of Significance 2)

Impact 4.2.3 The project could result in long-term operational emissions that could violate or substantially contribute to a violation of federal and state standards. This would be a **potentially significant** impact.

The project would result in long-term operational emissions of criteria air pollutants and O₃ precursors (i.e., ROG and NO_x). Project-generated increases in emissions would be predominantly associated with motor vehicle use.

Long-term operational emissions are summarized in **Table 4.2-7**. As shown, daily ROG thresholds would be exceeded. The predominant source of ROG emissions is fireplaces and woodstoves.

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**TABLE 4.2-7
LONG-TERM OPERATIONAL EMISSIONS – UNMITIGATED
(POUNDS PER DAY)**

Source	Emissions					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Summer Emissions						
Area Source	125.82	1.73	157.48	0.05	21.22	21.22
Energy Use	0.04	0.40	0.17	0.00	0.03	0.03
Mobile Source ¹	2.63	7.33	28.33	0.06	4.52	1.27
Total	128.49	9.46	185.98	0.11	25.77	22.52
Winter Emissions						
Area Source	125.82	1.73	157.48	0.05	21.22	21.22
Energy Use	0.04	0.40	0.17	0.00	0.03	0.03
Mobile Source ¹	2.55	8.19	29.93	0.06	4.52	1.27
Total	128.41	10.32	187.58	0.11	25.77	22.52
PCAPCD Potentially Significant Impact Threshold (Daily Emissions)	82 pounds/day	82 pounds/day	None	None	82 pounds/day	None
Exceed PCAPCD Daily Threshold?	Yes	No	No	No	No	No

Source: CalEEMod version 2013.2.2. See **Appendix 4.2** for emission model outputs.

Notes:

1. Trip generation rates are derived from the transportation impact analysis (LSC 2015). Emission projections account for project components including proximity to a bus stop and pedestrian and bicycle facility enhancements.

This would be a **potentially significant** impact. Therefore, the following mitigation would be required to reduce emissions.

Mitigation Measure

MM 4.2.3 Prohibition of Wood-Burning Fireplaces. The installation of wood-burning fireplaces shall be prohibited within the development. This prohibition shall be noted on the deed for future property owners to obey. Natural gas fireplaces are acceptable.

Implementation of mitigation measure **MM 4.2.3** would reduce impacts to the extent shown in **Table 4.2-8**.

TABLE 4.2-8
LONG-TERM OPERATIONAL EMISSIONS – MITIGATED (POUNDS PER DAY)

Source	Emissions					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Summer Emissions						
Area Source	3.53	0.07	6.67	0.00	0.13	0.13
Energy Use	0.04	0.40	0.17	0.00	0.03	0.03
Mobile Source	2.63	7.33	28.33	0.06	4.52	1.27
Total	6.20	7.80	35.17	0.06	4.68	1.43
Winter Emissions						
Area Source	3.53	0.07	6.67	0.00	0.13	0.13
Energy Use	0.04	0.40	0.17	0.00	0.03	0.03
Mobile Source	2.55	8.19	29.93	0.06	4.52	1.27
Total	6.13	8.68	36.78	0.06	4.69	1.44
PCAPCD Potentially Significant Impact Threshold (Daily Emissions)	82 pounds/day	82 pounds/day	None	None	82 pounds/day	None
Exceed PCAPCD Daily Threshold?	No	No	No	No	No	No

Source: CalEEMod version 2013.2.2. See **Appendix 4.2** for emission model outputs.

Notes:

1. Trip generation rates are derived from the transportation impact analysis (LSC 2015). Emission projections account for project components including proximity to a bus stop and pedestrian and bicycle facility enhancements.

As shown, implementation of mitigation measure **MM 4.2.3** would reduce emissions to below PCAPCD significance thresholds. Therefore, with mitigation, this is a **less than significant** impact.

Expose Sensitive Receptors to Substantial Carbon Monoxide Pollutant Concentrations (Standard of Significance 3)

Impact 4.2.4 The project would not contribute to localized concentrations of mobile-source carbon monoxide that would exceed applicable ambient air quality standards. This would be a **less than significant** impact.

The primary mobile-source criteria pollutant of local concern is carbon monoxide. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Transport of this criteria pollutant is extremely limited; CO disperses rapidly with distance from the source under normal meteorological conditions. Under certain meteorological conditions, however, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Areas of high CO concentrations, or “hot spots,” are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours.¹ CO concentration modeling is therefore typically conducted for intersections that are projected to operate at unacceptable levels of service during peak commute hours.

¹ Level of service (LOS) is a measure used by traffic engineers to determine the effectiveness of transportation infrastructure. LOS is most commonly used to analyze intersections by categorizing traffic flow with corresponding safe driving conditions. LOS A is considered the most efficient level of service and LOS F the least efficient.

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As described in Section 4.12, Transportation and Traffic, none of the project intersections are projected to operate at unacceptable levels as a result of the project. Therefore, this impact is **less than significant**.

Mitigation Measures

None required.

Expose Sensitive Receptors to Substantial Toxic Air Contaminant Concentrations (Standard of Significance 3)

Impact 4.2.5 The project would not result in increased exposure of existing or planned sensitive land uses to toxic air contaminant emissions (i.e., diesel PM). This impact is **less than significant**.

Sensitive land uses are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. Sensitive receptors in the area include residences to the west and north, the nearest within 110 feet of the construction fence line north of the project site. Squaw Valley Academy, a private boarding school, is located approximately 160 feet away from the construction fence line at the south of the project site.

Construction

Construction-related activities would result in temporary, short-term project-generated emissions of diesel PM from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., demolition, clearing, grading); paving; application of architectural coatings; on-road truck travel; and other miscellaneous activities. For construction activity, diesel PM is the primary toxic air contaminant of concern. On-road diesel-powered haul trucks traveling to and from the construction area to deliver materials and equipment are less of a concern because they would not stay on the site for long durations.

CARB identified particulate exhaust emissions from diesel-fueled engines (i.e., diesel PM) as a TAC in 1998. The potential cancer risk from the inhalation of diesel PM, as discussed below, outweighs the potential for all other health impacts (i.e., non-cancer chronic risk, short-term acute risk) and health impacts from other TACs (CARB 2003), so diesel PM is the focus of this discussion. Based on the emissions modeling conducted and presented in **Table 4.2-6**, maximum daily emissions of PM_{2.5}, considered a surrogate for diesel PM, would not exceed 13 pounds per day during the most intense season of construction activity. Furthermore, even during the most intense year of construction, emissions of diesel PM would be generated from different locations on the project site rather than in a single location because different types of construction activities (e.g., site preparation and building construction) would not occur at the same place at the same time.

The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazards Assessment (OEHHA), assessments of health risks posed

by air toxics should be based on a 70- or 30-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the proposed project (OEHHA 2012, p. 11-3). The use of off-road heavy-duty diesel equipment during project construction would be limited to the construction season (approximately May 1 to October 15) and would only occur over the course of a couple of seasons.

As described, health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer. The use of diesel-powered construction equipment would be temporary and episodic and would occur over several locations isolated from one another. Additionally, as described in Section 2.0, Project Description, construction activities would primarily occur within a 3.38-acre area. Construction projects contained in a site of less than 5 acres are generally considered to represent less than significant health risk impacts due to (1) limitations on the off-road diesel equipment able to operate and thus a reduced amount of generated diesel PM, (2) the reduced amount of dust-generating ground disturbance possible compared to larger construction sites, and (3) the reduced duration of construction activities compared to the development of larger sites. Furthermore, as previously stated, project construction would be limited to the construction season of approximately May 1 to October 15 and would only occur over the course of a couple of construction seasons. According to CARB, construction projects in rural areas lasting less than 18 months are generally considered to pose less than significant health risk impacts (CARB 2004). Additionally, construction activities would be subject to and would comply with California regulations limiting idling to no more than 5 minutes, which would further reduce nearby sensitive receptors' exposure to temporary and variable diesel PM emissions.

For these reasons and because diesel fumes disperse rapidly over relatively short distances, diesel PM generated by construction activities would not be expected to expose sensitive receptors to substantial amounts of air toxics.

Another potential source of TACs associated with construction-related activities is the airborne entrainment of asbestos due to the disturbance of naturally-occurring asbestos-containing soils. The proposed project is not located in an area designated by the State of California as likely to contain naturally-occurring asbestos (DOC 2000). As a result, construction-related activities would not be anticipated to result in increased exposure of sensitive land uses to asbestos.

Impacts associated with construction activities would be **less than significant**.

Operations

Project operation would not result in the development of any sources of TACs. In April 2005, CARB released the *Air Quality and Land Use Handbook: A Community Health Perspective*, which offers guidance on siting sensitive land uses in proximity to sources of air toxics. According to this guidance document, CARB does not consider residential neighborhoods to be sources of air toxics (CARB 2005).

There is a potential that future residents at the residential development could be exposed to TAC emissions from stationary and/or mobile sources. Per PCAPCD guidance, all TAC sources within 1,000 feet of a proposed sensitive receptor need to be identified and analyzed. The only source of TACs within 1,000 feet is State Route (SR) 89, located approximately 250 feet from the nearest proposed residence. CARB's *Air Quality and Land Use Handbook*, which offers guidance on developing sensitive land uses in proximity to sources of air toxics, provides guidance concerning the placement of sensitive receptors in the vicinity of freeways and major roadways. The handbook recommends that sensitive land uses be sited no closer than 500 feet from a

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freeway or major roadway that accommodates more than 100,000 automobile trips daily. This 500-foot buffer area was developed to protect sensitive receptors from exposure to diesel PM and was based on traffic-related studies that showed a 70 percent drop in PM concentrations at a distance of 500 feet from the roadway. Presumably, acute and chronic risks as well as lifetime cancer risk due to diesel PM exposure are lowered proportionately. As stated, the project site is located approximately 250 feet from SR 89; however, the highway accommodates an average of 10,300 automobile trips daily (Caltrans 2015). Therefore, per CARB guidance would not represent a negative impact to the proposed project. This impact is **less than significant**.

Mitigation Measures

None required.

4.2.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The setting for this cumulative analysis consists of both the Mountain Counties Air Basin (MCAB) and the Lake Tahoe Air Basin (LTAB) and associated growth and development anticipated in these basins. This includes consideration of attainment efforts for each of these basins under development that could potentially result from all existing, proposed, planned, and reasonably foreseeable projects and growth in the region.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulatively Considerable Net Increase in Nonattainment Criteria Pollutants (Standard of Significance 5)

Impact 4.2.6 The proposed project, in combination with cumulative development in the MCAB and LTAB, would not result in a cumulatively considerable net increase of criteria air pollutants for which the air basin is designated nonattainment. This would be a **less than cumulatively considerable** impact.

According to the PCAPCD, in the case that operational emissions attributable to the project are below the cumulative threshold of significance of 10 pounds per day of ROG or 10 pounds per day NO_x, the project's contribution to impacts would be considered less than cumulatively considerable. As identified under Impact 4.2.3 (see **Table 4.2-7**), the proposed project unmitigated emissions would exceed both PCAPCD's project thresholds (82 pounds per day for ROG and NO_x) and the cumulative threshold. Implementation of the prohibition of wood-burning fireplaces under mitigation measure MM 4.2.3 would reduce ROG and NO_x emissions below the 10 pounds per day threshold for cumulative impacts. Therefore, the project's contribution of air pollutants would be **less than cumulatively considerable**.

Mitigation Measures

None required.

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